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Issue 1 - EF-431470.  
March 28, 1921.

METHOD OF OPERATION  
SIGNAL CIRCUIT

Auxiliary And Night Alarm - Trouble Desk - Full Mechanical Power Driven System.

GENERAL DESCRIPTION

1. This circuit is used to provide visual signals at the trouble desk, auxiliary to certain signals at the sender monitor's position. It is provided with a night alarm key, which when in a non-operated position, provides audible signals in addition to these visual signals and also gives an audible alarm on incoming calls to the trouble desk over talking lines.

DETAILED DESCRIPTION

OPERATION

FIGURE 1.

PLUGGING UP LINES

2. When a call is made to or from a line that has been plugged up at an M.D.F. jack, the TM relay operates in series with a lamp of the plugging up line circuit. (Plugging up lines located in the same panel with the time measure and monitoring alarm circuits).

3. The TM relay operated, lights a panel pilot lamp in series with the NA relay which operates. The NA relay operated operates the 43-F sub-set ringer or the 4-C buzzer.

4. When the call is answered by the desk attendant, the TM relay releases, releasing the NA relay and extinguishing the panel pilot lamp. The NA relay released, silences the sub-set ringer or the buzzer.

SENDER COIN ALARM

5. In case the coin sender time measure and monitoring alarm circuit functions on coin return, the coin collect or coin line test, the TM relay operates in series with the time measure and monitoring alarm circuit coin lamp.

6. From this point on with the TM relay operated, the circuit functions as described for plugging up lines.

FIGURE 2

PLUGGING UP LINES

7. When a call is made to or from a line which has been plugged up at an M.D.F. trunk, the PU relay operates in series with a lamp in the plugging up line circuit. (Plugging up lines not located in the same panel with the time measure and monitoring alarm circuits).

FIGURE 5

TALKING LINE ALARM

14. On an incoming call over a talking line to the trouble desk from a local desk, local station, "A" operator, district frame, incoming frame, supervisor etc., the NA relay operates in series with the 500 ohm 18-AC resistance following the operation of a relay in the line. The NA relay operated, operates the ringer or buzzer. When the call is answered, the NA relay releases, silencing the ringer or buzzer.

FIGURE 6

EMERGENCY SENDER ALARM

15. The operation of an emergency sender key at a cordless "B" board lights a class lamp at the main alarm board and a pilot lamp at the floor alarm board and closes a circuit for operating the sub-set ringer or the buzzer at the trouble desk over leads A and G. The release of the emergency sender key, extinguishes the lamp and silences the ringer or buzzer.

D.C. APPARATUS ALARM

16. The operation of a fuse associated with apparatus operating on direct current, lights a class lamp at the main alarm board and with the NA key in a non-operated position, closes a circuit for operating the sub-set ringer or buzzer over lead A-1, or G-1. The operation of the NA key, replacement of the operated fuse, or reversal of a power switch as the case may be, extinguishes the lamp and silences the ringer or buzzer.

FIGURE 7

PERMANENT SIGNAL HOLDING LINE ALARM

17. When a district or office selector seizes a holding line under control of a sender primed by the sender monitor's test cord, the HL relay operates, following the operation of a relay in the sender monitor's permanent signal holding line circuit. The HL relay operated, operates the NA relay in series with the panel pilot lamp, which lights. The NA relay operated functions as described for Figure 5. When the sender monitor inserts the plug of a cord in the holding line answering jack, the HL relay releases, extinguishing the panel pilot lamp and releasing the NA relay, silencing the ringer or buzzer.

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CIRCUIT REQUIREMENTS

	<u>OPERATE</u>	<u>NON-OPERATE</u>	<u>RELEASE</u>
B10 (TM) (PU)	Test .027 amp. Readj. .025 amp.		Test .002 amp. Readj. .004 amp.
B10 (NA) (TK)	Test .033 amp. Readj. .025 amp.		Test .002 amp. Readj. .004 amp.
E5 (HL)	Test .014 amp. Readj. .008 amp.		Test .0015 amp. Readj. .003 amp.

ENG.--ANB-VL  
10/31/21.

CHK'D.—RAP

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